

In the Claims

1. An agitator, comprising:
a continuous metal axle;
a pulley held on one end of said metal axle;
a sleeve of lightweight plastic material received over said
5 metal axle wherein said sleeve is cylindrical in shape having a diameter no
greater than 22.00 mm.
2. The agitator of claim 1, wherein said sleeve carries a
cleaning structure.
3. The agitator of claim 2, wherein said cleaning structure is
selected from a group consisting of a beater bar, a brush, tufted bristles, a
wiper and combinations thereof.
4. The agitator of claim 1, wherein said axle has a diameter
between about 4.00 mm to about 8.00 mm.

5. The agitator of claim 1, wherein said pulley includes a hub for securing to said axle.

6. The agitator of claim 5, wherein said pulley also includes a metal D-nut for engaging a stub shaft of a drive gear.

7. The agitator of claim 6, wherein said pulley includes a pair of projecting box ribs and said sleeve includes a pair of projecting flanges for receiving said box ribs.

8. The agitator of claim 7, wherein said sleeve also includes a collar and a pair of projecting lugs for engaging in a cooperating pair of slots in said pair of box ribs.

9. The agitator of claim 8, wherein said collar includes a pair of slots for receiving said box ribs.

10. The agitator of claim 9, wherein said pulley includes a projecting hub and said collar includes a gap for receiving and holding said hub.

11. An agitator for a vacuum cleaner, comprising:
an axle;
a pulley held on said axle;

a sleeve received over said axle; and
said pulley including a mounting fixture for engaging a stub
shaft of a drive gear.

12. The agitator of claim 11, wherein said pulley includes a pair of projecting box ribs and said sleeve includes a pair of projecting flanges for receiving and engaging said box ribs.

13. The agitator of claim 12, wherein said sleeve also includes a collar and a pair of projecting lugs for engaging in said pair of box ribs.